

**AMENDMENT**

***In the Claims:***

1. (Currently amended) A method of treating cognitive deficits in learning and memory in individuals in need thereof, the method comprising administering to the individual an effective amount of a ~~partial nicotine agonist~~ a mecamylamine or a mecamylamine stereoisomer.
2. (Currently amended) The method of claim 1 wherein the ~~partial nicotine agonist is mecamylamine, a~~ mecamylamine or mecamylamine stereoisomer is dimethylamino mecamylamine analog, or a mecamylamine stereoisomer.
3. (Currently amended) The method of claim 2 ~~1~~, wherein the effective amount of the ~~partial nicotine agonist~~ mecamylamine or mecamylamine stereoisomer is 0.005-1.00 mg/kg/day.
4. (Previously presented) The method of claim 1 in which the cognitive deficits in learning and memory are brought on by therapy using conventional neuroleptic drugs.
5. (Original) The method of claim 1 additionally comprising administration of an atypical neuroleptic drug.
6. (Currently amended) A method of treating cognitive deficits in learning and memory associated with learning disorders in individuals in need thereof, the method comprising administering to the individual an effective amount of a ~~partial nicotine agonist~~ a mecamylamine or mecamylamine stereoisomer.
7. (Currently amended) The method of claim 6, wherein the ~~partial nicotine agonist is mecamylamine, a~~ mecamylamine or mecamylamine stereoisomer is dimethylamino mecamylamine analog, or a mecamylamine stereoisomer.
8. (Currently amended) The method of claim 7 ~~6~~, wherein the effective amount of the ~~partial nicotine agonist~~ mecamylamine or mecamylamine stereoisomer is 0.005-1.00 mg/kg/day.
9. (Currently amended) A method of treating cognitive deficits in learning and memory associated with age-related cognitive disorders in an individual in need thereof, the method comprising administering to the individual an effective amount of a ~~partial nicotine agonist~~ a mecamylamine or a mecamylamine stereoisomer.
10. (Currently amended) The method of claim 9, wherein the ~~partial nicotine agonist is mecamylamine, a~~ mecamylamine or mecamylamine stereoisomer is dimethylamino mecamylamine analog, or a mecamylamine stereoisomer.
11. (Currently amended) The method of claim 9, wherein the effective amount of the ~~partial nicotine agonist~~ mecamylamine or mecamylamine stereoisomer is 0.005-1.00 mg/kg/day.

12. (Previously presented) The method of claim 9 in which the cognitive deficits in learning and memory are caused or exacerbated by therapy using conventional neuroleptic drugs.
13. (Original) The method of claim 9 additionally comprising administering an atypical neuroleptic drug.
14. (Canceled)
15. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
16. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
17. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
18. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
19. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
20. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
21. (Previously presented) The method of claim 2, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
22. (Currently amended) The method of claim 2, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.
23. (Currently amended) The method of claim 2, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.
24. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
25. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
26. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.

27. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
28. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
29. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
30. (Previously presented) The method of claim 7, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
31. (Currently amended) The method of claim 7, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.
32. (Currently amended) The method of claim 7, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.
33. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
34. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
35. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
36. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
37. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
38. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
39. (Previously presented) The method of claim 10, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
40. (Currently amended) The method of claim 10, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.

41. (Currently amended) The method of claim 10, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.
42. (Currently amended) A method for treating cognitive deficits in learning and memory in a patient suffering from executive dysfunction, the method comprising administering an effective amount of ~~mecamylamine, a stereoisomer thereof, or an analog thereof~~ a mecamylamine or a mecamylamine stereoisomer.
43. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
44. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
45. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
46. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
47. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
48. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
49. (Previously presented) The method of claim 42, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
50. (Currently amended) The method of claim 42, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.
51. (Currently amended) The method of claim 42, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.
52. (Currently amended) A method for treating treating cognitive deficits in learning and memory associated in a patient suffering from attention deficit hyperactivity disorder, the method comprising administering an effective amount of ~~mecamylamine, a stereoisomer thereof, or an analog thereof~~ a mecamylamine or a mecamylamine stereoisomer.
53. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.

54. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
55. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
56. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
57. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.
58. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.
59. (Previously presented) The method of claim 52, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.
60. (Currently amended) The method of claim 52, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.
61. (Currently amended) The method of claim 52, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.
62. (Currently amended) A method for treating treating cognitive deficits in learning and memory associated in a patient suffering from bipolar disorder, the method comprising administering an effective amount of ~~mecamylamine, a stereoisomer thereof, or an analog thereof~~ a mecamylamine or a mecamylamine stereoisomer.
63. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.001 mg/kg/day to about 10 mg/kg/day.
64. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.002 mg/kg/day to about 7 mg/kg/day.
65. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.005 mg/kg/day to about 2 mg/kg/day.
66. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.005 mg/kg/day to about 10 mg/kg/day.
67. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.01 mg/kg/day to about 1.5 mg/kg/day.

68. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.01 mg/kg/day to about 0.5 mg/kg/day.

69. (Previously presented) The method of claim 62, wherein the effective amount is from about 0.03 mg/kg/day to about 0.1 mg/kg/day.

70. (Currently amended) The method of claim 62, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered in a sustained or delayed release dosage form.

71. (Currently amended) The method of claim 62, wherein the ~~mecamylamine, stereoisomer thereof, or analog thereof~~ mecamylamine or mecamylamine stereoisomer is administered by bronchial inhalation.